

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Wireless E911 Location Accuracy Requirements	)	PS Docket No. 07-114
	)	
Revision of the Commission's Rules to Ensure	)	CC Docket No. 94-102
Compatibility with Enhanced 911 Emergency	)	
Calling Systems	)	
	)	
Association of Public-Safety Communications	)	
Officials-International, Inc. Request for	)	
Declaratory Ruling	)	
	)	
911 Requirements for IP-Enabled Service	)	WC Docket No. 05-196
Providers	)	

**COMMENTS OF CINCINNATI BELL WIRELESS LLC**

Respectfully submitted,

Jouett K. Brenzel  
Cincinnati Bell Wireless LLC  
221 E. Fourth Street, 103-1280  
Cincinnati, OH 45202  
(513) 397-7260

Attorney for Cincinnati Bell Wireless LLC

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Wireless E911 Location Accuracy Requirements	)	PS Docket No. 07-114
	)	
Revision of the Commission's Rules to Ensure	)	CC Docket No. 94-102
Compatibility with Enhanced 911 Emergency	)	
Calling Systems	)	
	)	
Association of Public-Safety Communications	)	
Officials-International, Inc. Request for	)	
Declaratory Ruling	)	
	)	
911 Requirements for IP-Enabled Service	)	WC Docket No. 05-196
Providers	)	

**COMMENTS OF CINCINNATI BELL WIRELESS LLC**

Cincinnati Bell Wireless LLC ("CBW") hereby submits comments to the Commission's Notice of Proposed Rulemaking ("NPRM") in the above-captioned docket that was released by the Commission on June 1, 2007, and published in the Federal Register on June 20, 2007. Section III.A. of the NPRM seeks comment on the Commission's tentative conclusion that it should adopt a proposal by the Association of Public Safety Communications Officials-International, Inc. ("APCO") to clarify Section 20.18(h) of the Commission's rules to require licensees subject to the rule to satisfy the standards for wireless E911 Phase II location accuracy and reliability at a geographic level defined by the coverage area of each respective local public safety answering point ("PSAP"). CBW submits these comments in response to the Commission's inquiry.

## **BACKGROUND**

CBW is an Ohio limited liability company which holds licenses for Broadband PCS services in the Cincinnati and Dayton, Ohio Basic Trading Areas (“BTAs”), covering the greater Cincinnati and Dayton metropolitan areas as well as several counties in northern Kentucky and Indiana.

CBW provides digital wireless service using the Global System for Mobile Communications (“GSM”) standard. CBW has implemented a network-based solution to deliver automatic location information (“ALI”) to the 58 PSAPs serving 24 counties in CBW’s operating area. Since December 2004, CBW has spent nearly \$11 million to deploy E911 Phase II to each of the 28 PSAPs that have requested Phase II service. Specifically, CBW has deployed Phase II service to 14 out of 19 PSAPs in Butler, Clark, Clermont, Hamilton, Miami, Shelby and Warren Counties in Ohio; 10 out of 10 PSAPs in Boone, Bracken, Campbell, Gallatin, Grant, Kenton and Pendleton Counties in Kentucky; and to the four PSAPs serving Dearborn, Ohio, Ripley and Switzerland Counties in Indiana. CBW has not received Phase II requests from those PSAPs serving Montgomery, Preble and Greene Counties, Ohio which include the greater Dayton metropolitan area or from those PSAPs serving Brown County in South Western Ohio.

Recent accuracy compliance tests performed by an independent third party confirmed that CBW meets the requirements for network-based technologies set forth in Section 20.18(h) on an operating area basis. Notably, in 2006 and the first half of 2007, CBW spent approximately \$2 million specifically to improve the accuracy of Phase II location information to those PSAPs currently receiving Phase II information.

## **DISCUSSION**

The Commission seeks comment on its tentative conclusion that Section 20.18(h) should be clarified to require carriers to meet Phase II accuracy requirements at the PSAP service area level. The Commission reasons that accuracy at the PSAP level is necessary to prevent carriers from averaging accuracy over vast service areas and asserting compliance with the accuracy

requirements set forth in the rules even when they do not meet the requirements in substantial portions of their service areas.<sup>1</sup> The tentative conclusion is based on APCO's October 5, 2004 Request for Declaratory Ruling seeking such a clarification.<sup>2</sup>

CBW firmly supports the goal of providing meaningful and accurate automatic location information to PSAPs and has invested millions of dollars to meet the location accuracy requirements established by the Commission in 1996.<sup>3</sup> As indicated above, CBW has implemented the best network-based solution available today in order to fulfill each of the Phase II requests it has received from PSAPs in its operating area. CBW has also made additional capital investments during the last year specifically to ensure that accuracy requirements are met, namely by deploying 20 Angle of Arrival ("AOA") sites to enhance the accuracy of a caller's location in known trouble spots in the network.

However, while CBW understands that national or state level accuracy testing may be overly broad to ensure that PSAPs throughout the country receive accurate ALI data related to a 911 call, CBW does not believe that PSAP level testing is feasible for many carriers given technology limitations inherent in both network-based and handset-based solutions. Additionally, CBW does not believe that PSAP level testing is necessary or appropriate to achieve the Commission's objective. To the extent the Commission believes that clarification is needed, CBW urges the Commission to clarify its rules to allow for accuracy to be tested on a Metropolitan Statistical Area ("MSA") or Rural Statistical Area ("RSA") level as recommended by APCO in its February 4, 2005 supplement to its Request of Declaratory Ruling.<sup>4</sup>

---

<sup>1</sup> NPRM at ¶ 5.

<sup>2</sup> See Association of Public Safety Communications Officials-International, Inc. Request for Declaratory Ruling, CC Docket 94-102 (filed October 6, 2004).

<sup>3</sup> See Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket 94-102, First Report and Order, 11 FCC Rcd 18676 (1996).

<sup>4</sup> See Association of Public Safety Communications Officials-International, Inc. Supplement to Request for Declaratory Ruling, CC Docket 94-102 (filed February 4, 2005) ("Supplement").

In its Supplement, APCO acknowledged that PSAP level testing may not be available throughout the nation at this time but that MSAs and RSAs may provide appropriate boundaries for measuring compliance.<sup>5</sup> The Commission also recognizes that PSAP level testing may pose challenges to both carriers and technology providers.<sup>6</sup> CBW agrees on both points.

First, PSAP level testing is not feasible from a technology standpoint given the inherent limitations of today's network-based and handset-based location solutions. As a GSM based carrier, CBW has implemented a network-based solution that triangulates a 911 caller's location using three cell sites or base stations. Like most carriers, CBW generally has fewer cell sites or base stations at the edges of its network where there is less population density, making accurate triangulation of a caller's specific location more difficult or impossible. Acknowledging this limitation, however, CBW engineers its network to meet the current accuracy requirements on an overall operating area basis. If the Commission requires carriers to test accuracy on a PSAP level basis even at the fringes of its network, CBW may be unlikely to meet the accuracy standard (particularly if it is more stringent) at some PSAPs serving the outer limits of its coverage area. Thus, adoption of PSAP level testing will almost certainly guarantee that CBW and other carriers implementing a network-based location solution, a solution the current rules specifically allow and for which millions of dollars have been spent, will fail to meet the accuracy requirements at some PSAPs.

To avoid noncompliance with the accuracy requirements at a PSAP level, CBW believes that it would need to either remove certain sites at the edges of its network that serve only small portions of certain PSAPs' jurisdictions **or** build additional sites at the edges of its network for which there is little or no consumer demand. Neither option is in the public interest. If it

---

<sup>5</sup> See Supplement at pages 3-4.

<sup>6</sup> NPRM at ¶ 6. See also, Statement of Commissioner Robert M. McDowell.

removes fringe area sites, CBW's coverage area will diminish and consumers will be harmed. If required to build additional sites in sparsely populated areas for which there is no consumer demand on the network, CBW will have to spread the costs of those additional sites among all consumers, the vast majority of whom will not benefit from the expanded coverage the new sites will permit. In either instance, CBW will have to engineer its network solely to meet 911 accuracy requirements at certain PSAPs. On the other hand, if the Commission allows carriers to measure accuracy on a MSA or RSA basis, as recommended by APCO in its Supplement, carriers will be in a better position to balance the interests 911 accuracy, given the currently available technology, with the costs of maintaining and improving the availability of wireless service across the network for the benefit of all consumers.

Second, using the relevant MSA or RSA as the geographic boundary for measuring 911 accuracy is appropriate given that carriers generally engineer, construct and maintain their networks on the basis of those geographic areas. Moreover, as indicated by APCO, there is usually a relatively uniform population density within a MSA or RSA, making the average accuracy over these broader areas consistent with the accuracy that might be found at a particular PSAP in that MSA/RSA.<sup>7</sup> Thus, permitting carriers to average accuracy at the MSA or RSA will help to ensure that carriers provide meaningful and accurate location information to PSAPs throughout the entire MSA/RSA without forcing carriers to make the unnecessary choice between accuracy and coverage or between accuracy and unsustainable build-out. Clearly the public interest is better served by greater wireless coverage overall even if location accuracy is less than perfect in some locations. More importantly, adopting the MSA/RSA area for measuring accuracy for the foreseeable future will provide the industry, technology providers,

---

<sup>7</sup> Supplement at 4.

and public safety stakeholders the opportunity to determine what accuracy levels are actually achievable today.

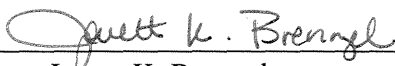
## **CONCLUSION**

While the continued improvement to 911 location accuracy is an important public safety goal, CBW questions whether accuracy measured at the PSAP level is premature given today's technology limitations. Neither APCO nor the Commission has presented any evidence to support the conclusion that wireless carriers are failing to provide meaningful and accurate location information to PSAPs today given available technology. Carriers have spent millions of dollars investing in location solutions in order to meet the accuracy requirements adopted by the Commission more than ten years ago. Changing the rules at this stage of the game while also acknowledging that most carriers cannot comply with the proposed rules is antithetical. Moreover, in CBW's experience, many PSAPs do not fully utilize Phase II data available to them today if they use it at all. It is notable that for the three months from April to June 2007, PSAPs served by CBW sought a single rebid of Phase II information for an average of 8% of calls and multiple rebids for an average of 1% of calls. There is no indication that PSAPs will make greater use of Phase II information if the Commission requires CBW to measure accuracy at the PSAP level. More importantly, E911 Phase II has not been requested nor deployed in many parts of the country, meaning that ALI data is not available at all for many 911 callers. Perhaps the focus should be on further deployment of Phase II throughout the country before the Commission adopts accuracy standards or testing requirements that cannot be met by carriers.

In sum, given the inherent limitations of location technologies today and carriers' inability to meet accuracy standards at the PSAP level, the Commission should, if necessary,

clarify its rules to allow for accuracy testing at the MSA or RSA. Such a geographic level better reflects the current state of location technology and is the more appropriate compliance measure.

Respectfully submitted,

By:   
Jouett K. Brenzel  
221 E. Fourth Street, 103-1280  
Cincinnati, OH 45202  
(513) 397-7260

Attorney for Cincinnati Bell Wireless LLC